IFW

Attorney's Docket No.: 6997P007 Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Confirmation No.: 3364

Application No.: 10/770,432

Applicant: Adam Leslie Clark

Filed: February 2, 2004

Art Unit: 2631

Examiner: Unknown

Docket No.: 6997P007

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

on August 4, 2004
Date of Deposit

Geneva Walls
Name of Person Mailing Correspondence

Geneva Walls 8/4/04
Signature Date

Mail Stop Petition
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION TO MAKE SPECIAL (37 CFR 1.102(d))

Sir or Madam:

Applicants hereby petition to make this new application special. This application has not received any examination on the merits.

(A) FEE

Applicants hereby enclose a check in the amount of $130.00 for the petition fee required by 37 C.F.R. § 1.17(h). Furthermore, the Commissioner is hereby authorized to charge payment of any fee due under 37 C.F.R. § 1.16 and § 1.17 associated with this communication or any future communication in this or any related application filed pursuant to 37 C.F.R. § 1.53 or credit any overpayment to Deposit Account No. 02-2666.

(B) CLAIMS

Either (1) all pending claims in this application are directed to a single invention, or (2) if the Office determines that all the claims are not obviously directed to a single invention,

applicants will make an election without traverse in response to notification under the established telephone restriction practice.

(C) SEARCH

A search for relevant prior art was made and the fields of search included:

U.S. patents and published applications in classes/subclasses:

382/166; 382/232; 382/244;

358/539; 358/13; 358/136;

340/701; and

375/240.02

publications; and

foreign patents and published applications.

(D) COPIES OF REFERENCES / INFORMATION DISCLOSURE STATEMENT

Attached are copies of references located during the above-referenced search that are deemed most closely related to the subject matter encompassed by the claims. Each of these references is listed in the attached Information Disclosure Statement. Applicants respectfully request that all references be considered and entered into the record of the present application.

The submission of these references is for the purpose of providing a complete record and is not a concession that the references listed therein are prior art to the invention claimed in the patent application. The right is expressly reserved to establish an invention date earlier than the above-identified filing date in order to remove any reference submitted herewith as prior art should it be deemed appropriate to do so.

Further, the submission of the references is not to be taken as a concession that any reference represents art that is relevant or analogous to the claimed invention. Accordingly, the right to argue that any reference is not properly within the scope of prior art relevant to an examination of the claims in the above-identified application is also expressly reserved.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. Therefore, Applicants believe no fee is due; however, should a fee be due, the Commissioner is hereby authorized to charge Deposit Account No. 02-2666.

(E) DETAILED DISCUSSION OF THE REFERENCES

A detailed discussion of the references deemed most closely related to the subject matter

encompassed by the claims is provided below.

Each selected reference fails to anticipate the present invention as claimed. To anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Furthermore, the selected references fail to establish a prima facie case of obviousness because the references, individually or in combination, neither teach nor suggest all the claim elements and limitations required by the patent application. Moreover, there is no motivation or suggestion in these references for their combination; and even assuming there were such motivation or suggestion, no combination of these references teaches or suggests the invention as claimed.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, it is submitted that all pending claims are distinguishable over the cited references, taken alone or in combination, and should be allowed.

Claims 1, 11 and 20 of the present application

The present invention relates to systems and methods for encoding live audio and video information. The following are the independent claims of the present application:

> 1. A method, comprising encoding data values by **mapping multi-dimensional parameters of the data values to respective one-dimensional parameters** and creating a table of encoded data values in which the data values are represented by their respective encoded counterparts utilizing the one-dimensional parameters and in which redundant ones of the encoded data values share common table entries.

11. A method, comprising encoding a data values having one or more multi-dimensional parameters by combining **a lossy encoding process in which the one or more multi-dimensional parameters of the data values are mapped to respective one-dimensional parameters** and stored in a table of encoded data values, with a lossless encoding process in which redundant ones of the encoded data values are arranged to share common entries in the table.

20. A set of computer readable instructions embodied on a computer-readable medium, which when executed by a computer processor cause the computer processor to execute a process comprising **encoding data values by mapping multi-dimensional parameters of the data values to respective one-dimensional parameters** and creating a table of encoded data values in which the data values are represented by their respective encoded counterparts utilizing the one-dimensional parameters and in which redundant ones of the encoded data values share common table entries.

Bishay et al. US 6,256,350

Bishay '350, Method and Apparatus for Low Cost Line-Based Video Compression of Digital Video Stream Data, discloses a method for separate luminance and chrominance encoding of video data whereby **luminance values are difference-encoded** while **Cr and Cb values are averaged** across a group of pixels and the average values are encoded for each pixel in the group (Abstract, Claims 1-5, Figure 4A, Column 6 lines 30-45). As disclosed by Bishay '350, there are at least three dimensional parameters of the data both before and after encoding (Luminance, Cr and Cb). Therefore, Bishay does not disclose mapping multi-dimensional parameters of data values to one-dimensional parameters.

Given that mapping multi-dimensional parameters of the data values to respective one-dimensional parameters is a required element of Claims 1 and 20, and encoding data values by mapping multi-dimensional parameters of the data values to respective one-dimensional parameters is a required element of Claim 11, the Applicant respectfully submits that the present invention is distinguished over Bishay '350.

Iourcha et al. (US 6,683, 978 and US 6,658,146)

Iourcha '146, Fixed-Rate Block-Based Image Compression with Inferred Pixel Values, claims a **system and method** for encoding, decoding, processing and compressing images

(Claims 1, 5, 8, 10, 11, 12, 13, 18, 22). Iourcha '978, a continuation of Iourcha '146, claims a **data format** for representing an original image block having a pixel color set, which is used in the system and methods claimed in Iourcha '146 (Claims 1, 11, 15, 23). As a continuation, Iourcha '978 necessarily does not disclose any new matter over Iourcha '146 (MPEP 201.7, Aug 2001).

Iourcha '146 discloses a system and method for encoding an image whereby each image block has a set of colors with associated parameters and a set of codewords is computed from the parameters (Claim 1, 5, 8, 10, 11, 12). The method and system requires several steps for the calculation of codewords. First, the center of gravity for pixel colors of an image block is computed (Col. 9 lines 25-35). Second, the axis that minimizes the moment of inertia about that center of gravity is calculated (Col. 9, lines 33-63). Third, the codeword generation module projects the color values of the pixels in the image block onto the calculated axis. (Col. 10, lines 5-15). Fourth, the codeword generation module searches for optimal partitions, or clusters of colors with a predefined spacing along the curve (Col. 10, lines 20-27). Fifth, the best M (a predefined integer) clusters are determined by minimizing the mean square error with the constraint that the points associated with each cluster are spaced according to the predefined spacing (Col. 10, lines 31-35). Colors in the image block are mapped to the closest color associated with one of the quantized colors specified by, or inferred from the codewords (Col. 10 65-68).

Iourcha '146 and '978 do not disclose mapping multi-dimensional parameters of data values to one-dimensional parameters. The codewords disclosed in Iourcha '146 and '987 are composed of multi-dimensional parameters, namely, Red, Blue, and Green components (Column 14, lines 34-44). Given that mapping multi-dimensional parameters of the data values to respective one-dimensional parameters is a required element of Claims 1 and 20, and encoding data values by mapping multi-dimensional parameters of the data values to respective one-dimensional parameters is a required element of Claim 11, the Applicant respectfully submits that the present invention is distinguished over Iourcha '146 and '978.

Keely et al. US 6,611,274

Keely '274, System Method and Computer Program Product for Compositing True Colors and Intensity Maped [sic] Colors into a Frame Buffer, discloses storing color coordinate data and intensity data into two fields of a pixel storage word. Color coordinate data is coded before storage by one of several algorithms including red, green, blue component coding,

truncating the value of the original color component or using a color index (Column 3, lines 49-61). None of the disclosed algorithms for coding the color coordinate data include any reference to mapping the multi-dimensional color parameters to one-dimensional color parameters.

Given that mapping multi-dimensional parameters of the data values to respective one-dimensional parameters is a required element of Claims 1 and 20, and encoding data values by mapping multi-dimensional parameters of the data values to respective one-dimensional parameters is a required element of Claim 11, the Applicant respectfully submits that the present invention is distinguished over Keely '274.

Nguyen et al. US 6,016,360

Nguyen '360, Method and Apparatus for Encoding Color Image Data, discloses a method of quantization whereby the color data in an image is compressed by eliminating all but the most significant bits from each of the color components (Claim 1, Column 3, lines 7-13). The number of color parameters stays constant in the method disclosed by Nguyen '360, and therefore, mapping multi-dimensional parameters to one-dimensional color parameters is not disclosed.

Given that mapping multi-dimensional parameters of the data values to respective one-dimensional parameters is a required element of Claims 1 and 20, and encoding data values by mapping multi-dimensional parameters of the data values to respective one-dimensional parameters is a required element of Claim 11, the Applicant respectfully submits that the present invention is distinguished over Nguyen '360.

Yu et al. US 2004/0101045 A1

Yu '045, System and Method for Low Bit Rate Watercolor Video, is an application for a U.S. patent that was published on May 27, 2004. Yu '045 discloses a method of encoding a video signal whereby an average UV value is computed for each block of the full color image frame in YUV format (Abstract, Claim 1). The present invention is not limited to YUV format. Furthermore, Yu '045 constructs a separate Y component image and UV component image (Claim 1). Yu '045 determines the most common UV combinations and constructs a lookup table that contains them. The UV component image is encoded as the lookup table of typical UV combinations and indexes to the lookup table.

Yu '045 discloses the creation of two separate images, one for each parameter set. Maintaining a separate encoding step for each parameter set is not mapping multi-dimensional parameters to one-dimensional color parameters. Given that mapping multi-dimensional

parameters of the data values to respective one-dimensional parameters is a required element of Claims 1 and 20, and encoding data values by mapping multi-dimensional parameters of the data values to respective one-dimensional parameters is a required element of Claim 11, the Applicant respectfully submits that the present invention is distinguished over Yu '045.

(F) SUMMARY

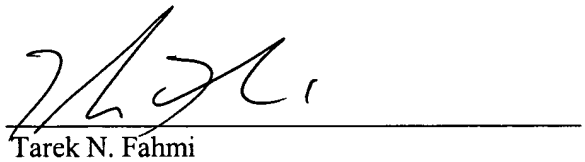
For at least the foregoing reasons, the claims are patentable over the references located during the above-referenced search that are deemed most closely related to the subject matter encompassed by the claims.

If there are any additional fees associated with this communication, please charge our deposit account 02-2666.

Respectfully Submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 8/4, 2004



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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application No.	10/770,432
Filing Date	February 2, 2004
First Named Inventor	Adam Leslie Clark
Art Unit	2631
Examiner Name	Unknown
Total Number of Pages in This Submission: 13	Attorney Docket Number: 6997P007

ENCLOSURES ***(check all that apply)***

- [X] Fee Transmittal Form
  - [X] Fee Attached
- [ ] Amendment / Response
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [X] Information Disclosure Statement
  - [X] PTO/SB/08
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Basic Filing Fee
  - [ ] Declaration/POA
  - [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [X] Petition
- [ ] Petition to Convert a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s)
- [ ] After Allowance Communication to Group
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to Group **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [X] Other Enclosure(s) *(please identify below):*

Petition to Make Special (13 CFR 1.102(d));
Six (6) References Cited;
Postcard.

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Tarek N. Fahmi, Reg. No. 41,402 BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Signature	
Date	8/4/04

CERTIFICATE OF MAILING/TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Typed or printed name	Geneva Walls		
Signature		Date	8/4/04

Based on PTO/SB/21 (04-04) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 06/04/2004.
SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

FEE TRANSMITTAL for FY 2004

Effective 01/01/2004. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT ($) 130.00

Complete if Known	
Application Number	10/770,432
Filing Date	February 2, 2004
First Named Inventor	Adam Leslie Clark
Examiner Name	Unknown
Art Unit	2631
Attorney Docket No.	6997P007

METHOD OF PAYMENT *(check all that apply)*

☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account

Deposit Account Number: 02-2666

Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

The Commissioner is authorized to: *(check all that apply)*

☐ Charge fee(s) indicated below ☐ Credit any overpayments

☒ Charge any additional fee(s) or underpayment of fees as required under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20.

☐ Charge fee(s) indicated below, **except for the filing fee** to the above-identified deposit account

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) ($)

2. EXTRA CLAIM FEES

			Extra Claims		Fee from below	Fee Paid
Total Claims		- 20** =		X		=
Independent Claims		- 3 =		X		=
Multiple Dependent						=

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple Dependent claim, if not paid
1204	86	2204	43	**Reissue independent claims over original patent
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($)

***or number previously paid, if greater, For Reissues, see below*

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
2053	130	2053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for *ex parte* reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1404	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	2451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	2460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	1809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	
Other fee (specify)				Petition to Make Special (13 CFR 1.102(d))	130.00

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) ($) 130.00

SUBMITTED BY

Complete (if applicable)

Name *(Print/Type)*	Tarek N. Fahmi	*Registration No. (Attorney/Agent)*	41,402	*Telephone*	(408) 947-8200
Signature				*Date*	8/4/04

Based on PTO/SB/17 (10-03) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 02/10/2004.
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